

CLAIMS:

1. System for determining the carbon dioxide(CO₂) content of exhaled air, having a sensor to which the exhaled air is supplied in an analysis duct for generating measuring signals proportional to the carbon dioxide content, and having an evaluation device which is connected to the sensor and has indicating devices, characterized in that an air tube (5; 17), which supplies the exhaled air, is connected to one end of the analysis duct (8), in which case the exhaled air is acted upon only by means of the pressure causing the characteristic flow in the air tube (17) and the analysis duct (8), and in that the analysis duct (8) is open at its other end (26).

2. System according to Claim 1, characterized in that the air tube (17) is connected with the interior (18) of a mask (19) surrounding the mouth and the nose.

3. System according to Claim 1 or 2, characterized in that a mask adapter (21), which receives the air tube (17) carrying the exhaled air, is exchangeably fastened on the mask (19).

4. System according to one of Claims 1 to 3, characterized in that the analysis duct (8) is arranged in a

sensor adapter (7) which is detachably connected with the mask adapter (21).

5. System according to one of Claims 1 to 4, characterized in that oxygen can be supplied to the mask interior (18) by way of a probe (20).

6. System according to Claim 5, characterized in that an opening (22) for excess oxygen is provided in the probe (20).

7. System according to one of Claims 2 to 6, characterized in that openings (23) for a gas exchange between the mask interior (18) and the outside air are provided in the mask (19).

8. System according to Claim 1, characterized in that breathing air exhaled through the nose is supplied to the sensor (6) by means of air tubes (5) inserted in the nasal cavities, and in that the sensor (6) and the air tubes (5) can be fastened or are fastened to a sensor adapter (7) which can be fixed on the nose.

9. System according to Claim 8, characterized in that the sensor (6) can be fixed by means of the sensor adapter (7) over the bridge of the nose, and the two air

tubes (5) are guided to the analysis duct (8).

10. System according to Claim 8 or 9, characterized in that the two air tubes (5) are guided together in front of the sensor (6).

11. System according to one of Claims 1 to 10, characterized in that the adapter (7) has a receiving device (1) for the sensor (6).

12. System according to Claim 11, characterized in that the sensor (6) can be detachably inserted in the receiving device (1).

13. System according to one of Claims 8 to 10, characterized in that the sensor adapter (7) has two fixing legs (9) which are connected in an articulated manner and can be fixed at both sides of the bridge of the nose on the nose.

14. System according to one of Claims 8 to 13, characterized in that the sensor adapter (7) can be glued on the skin of the nose.

15. System according to Claim 13 or 14, characterized in that, when the fixing legs (9) are glued onto the skin of the nose, the fixing legs are subjected to a tension

which widens the nasal cavities.

16. System according to one of Claims 8 to 10,
characterized in that the air tubes (5) consist of flexible
material.

18. System according to Claim 17,
characterized in that the respective tube end (10) is fastened to
the holding device (4) such that it is held in an area of the
nostril adjacent to the tip of the nose.

19. System according to one of Claims 1 to 11,
characterized in that a probe (11) can be inserted from the
outside into at least one of the air tubes (5), such that the
supply of exhaled air to the sensor (6) is interrupted.

20. System according to Claim 19,
characterized in that the probe (11) is aligned with the tube end
(10) inserted in the nasal cavity or is at least partially
inserted into this tube end (10).

21. System according to Claim 19 or 20,
characterized in that the probe (11) is an oxygen probe.

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